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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,499	07/30/2003	John L. Bennett	60,130-1845;03MRA0345	7902
26096	7590	12/15/2004	EXAMINER	
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			LEWIS, TISHA D	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/630,499

Applicant(s)

BENNETT, JOHN L.

Examiner

TISHA D. LEWIS

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

The following is a first action on the merits of application serial no. 10/630,499 filed on July 20, 2003.

Information Disclosure Statement

The information disclosure statement filed on July 30, 2003 has been acknowledged.

Claim Objections

Claim 12 is objected to because of the following informalities:

-In line 2 "a includes" should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2 and 10-13 are rejected under 35 U.S.C. 102(e) as being unpatentable by Angeles ('260). Angeles discloses a rolling vehicle having an axle assembly with a first axle (between 19 and 21) on a first axis, a second axle (between 20 and 22) on the first axis, a first motor (1) on a second axis transverse to the first axis, a second motor (2) on a third axis transverse to the first axis, a first gear stage driven by

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both motors (via gears 5 and 6), a second gear stage (via gears 7 and 8) driven by the first gear stage, a third gear stage (via 9 and 10) driven by the second gear stage wherein the third stage drives the first and second axles and the third gear stage being in the form of a differential set which can be a single or two speed carrier.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Reffle ('825). Reffle discloses a drive and steer system having an axle assembly with a first axle (via 20a) on a first axis, a second axle (via 20b) on the first axis, a motor (25) on a second axis transverse to the first axis, a first gear stage driven by the motor (via gears 26), a second gear stage (via 32) driven by the first gear stage, a third gear stage (35) driven by the second gear stage wherein the third stage drives the first and second axles, the first gear stage having a drive gear (26) driving a single gear (31) which mounts a pinion (33) of the second stage, the single gear and pinion are defined on a common axis (via 32), the pinion gear is supported by the single gear at one end, a pinion bearing (above 33) at another end and a cage (sleeve 54) between both ends, the cage is mounted to a housing (via 59 and 60) through a shim (flange 57), the pinion gear drives a ring gear (34) coaxial with the first axis and driving the third gear stage, the third gear stage being in the form of a differential set (35) which can be a single or two speed carrier.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reffle in view of Angeles. Reffle discloses a drive and steer system having an axle assembly with a first axle (via 20a) on a first axis, a second axle (via 20b) on the first axis, a motor (25) on a second axis transverse to the first axis, a first gear stage driven by the motor (via gears 26), a second gear stage (via 32) driven by the first gear stage, a third gear stage (35) driven by the second gear stage wherein the third stage drives the first and second axles, the first gear stage having a drive gear (26) driving a single gear (31) which mounts a pinion (33) of the second stage, the single gear and pinion are defined on a common axis (via 32), the pinion gear is supported by the single gear at one end, a pinion bearing (above 33) at another end and a cage (sleeve 54) between both ends, the cage is mounted to a housing (via 59 and 60) through a shim (flange 57), the pinion gear drives a ring gear (34) coaxial with the first axis and driving the third gear stage.

Reffle does not disclose a second motor defining a third axis transverse to the first axis.

Angeles discloses a rolling vehicle having an axle assembly with a first axle (between 19 and 21) on a first axis, a second axle (between 20 and 22) on the first axis,

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a first motor (1) on a second axis transverse to the first axis, a second motor (2) on a third axis transverse to the first axis, a first gear stage driven by both motors (via gears 5 and 6), a second gear stage (via gears 7 and 8) driven by the first gear stage, a third gear stage (via 9 and 10) driven by the second gear stage wherein the third stage drives the first and second axes and the third gear stage being in the form of a differential set which can be a single or two speed carrier.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide Reffle with a second motor in view of Angeles to drive and steer heavier loads than with just one motor.

FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is **(703) 872-9326 before final and 703-872-9327 after final**. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check **should not be** submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to
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Typed or printed name of person signing this certificate:

(Signature)

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If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Travis ('622) and Ruppert et al ('474, Figure 7) disclose two motors mounted transverse to a single output. Chang ('797, Figures 1-6) discloses a motor mounted transverse to a single output.

-Wada ('230), Felkai et al ('828) and Azuma et al ('512).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TISHA D. LEWIS whose telephone number is 703-305-0921. The examiner can normally be reached on M-Thur 8 AM TO 3 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHARLES A. MARMOR can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tdl
December 11, 2004

[Signature]
TISHA LEWIS
PRIMARY EXAMINER
AU 3681 12/11/04